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Negative Transgender-Related Media Messages Are Associated with Adverse Mental Health Outcomes in a Multistate Study of Transgender Adults

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Abstract

Purpose: The purpose of this study was to examine the extent to which transgender people have observed negative transgender-related messages in the media and the relationship between negative media message exposure and the mental health of transgender people.
Methods: In 2019, 545 transgender adults completed an online survey assessing demographics, negative transgender-related media messages, violence, and mental health. Separate multivariable logistic regression models examined the association of frequency of negative media exposure and clinically significant symptoms of depression, anxiety, post-traumatic stress disorder (PTSD), and global psychological distress.
Results: Mean age of the sample was 31.2 years (standard deviation [SD] = 11.2). Nearly half identified as nonbinary (42.2%), 82.0% were White, non-Hispanic, 56.9% had a college degree, and 67.0% were financially insecure. The majority reported experiencing childhood abuse (60.6%) and abuse in adulthood (58.0%). The mean frequency of exposure to negative transgender-related media was 6.41 (SD = 2.9) with 97.6% of the sample reporting exposure to negative media depictions of transgender people across a range of mediums. In separate multivariable models adjusted for age, gender identity, race, education, income, and childhood/adult abuse, more frequent exposure to negative depictions of transgender people in the media was significantly associated with clinically significant symptoms of depression (adjusted odds ratio [aOR] = 1.18; 95% confidence interval [CI] = 1.08–1.29; $p = 0.0003$); anxiety (aOR = 1.26; 95% CI = 1.14–1.40; $p < 0.0001$); PTSD (aOR = 1.25; 95% CI = 1.16–1.34; $p < 0.0001$); and global psychological distress (aOR = 1.28; 95% CI = 1.15–1.42; $p < 0.0001$).
Conclusion: Exposure to negative media messages from multiple sources necessitates multilevel interventions to improve the mental health of transgender people and curb stigma at its source.

Keywords: media, mental health, stigma, transgender

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Introduction

In the United States, transgender individuals, who have a gender identity or expression that differs from their assigned birth sex,[1] experience high levels of stigma.[2] A primary driver of poor mental health among transgender individuals,[2] stigma occurs across settings (e.g., home, school, work, health care) and includes enacted forms such as discrimination (e.g., denial of services), verbal harassment (e.g., misgendering, name calling), and physical violence (e.g., hate crimes, sexual abuse).[3–6] Although numerous studies have documented the mental health correlates of enacted stigma,[7–10] the role of the media as a source of stigma and poor mental health is understudied among transgender individuals.

While there have been increasing efforts to showcase positive, gender-affirming images of transgender individuals on television (TV) (e.g., I am Jazz, Pose), in magazines (e.g., Laverne Cox's 2014 Time Magazine cover), and in books (e.g., Janet Mock's autobiography, Redefining Realness), stigmatizing depictions and messaging related to transgender people persist in the media.[11–14] Some scripted TV and movies rely on negative stereotypes of transgender people as criminals, villains, or sexual predators, whereas others present narrow depictions of transgender people that fail to capture the diversity of the transgender community.[12,13,15–18] For example, TV crime dramas routinely portray transgender women as victims of sexual assault or murder[18] and, in many cases, transgender victims in these genres are portrayed as being responsible for their own mistreatment due to promiscuity or fetishism.[16] In addition, while credited for featuring Laverne Cox, a transgender woman of color, the Netflix show, Orange is the New Black, portrays Cox's character as a criminal who committed credit card fraud to obtain gender-affirming surgery.[12]

The news media is another medium through which negative messages about transgender people are routinely disseminated. Indeed, a content analysis of the news coverage of the 23 transgender women of color murdered in 2016 found that in many cases, transgender victims were misgendered and their murders were often trivialized.[19] Several talk news personalities also regularly demonize transgender individuals. For example, InfoWars radio show host, Alex Jones, has a long history of using dehumanizing language to refer to transgender individuals.[20] Similarly, Fox News host Tucker Carlson has incited fears about transgender individuals' use of public restrooms and has pushed numerous pieces of misinformation, including fake news stories claiming that the epidemic of violence toward transgender individuals does not exist.[21] These deceptive and harmful media depictions of transgender people in the media serve to stoke fears among the cisgender majority and have the potential to heighten transgender individuals' fears regarding the possibility of experiencing enacted stigma.

An extensive body of research among stigmatized groups has found that negative media depictions can fuel mistreatment and harm the mental health of affected communities.[22,23] A large body of work has explored the health impact of negative depictions of people with mental illness in the media. A 2008 metanalysis highlighted the role that the media plays in both producing and perpetuating stigma related to mental illness by presenting people with mental illness as not only ''peculiar and different, but also as dangerous.''[23] These negative media depictions can impact marginalized populations in several ways. First, on a societal level, fictionalized, negative media depictions, as seen in movies and on TV,[24] and on negative ''fact-based'' news programs,[25–27] promote prejudice and stereotype formation among members of the general population, which can in turn lead the majority population to avoid and mistreat marginalized groups.[28–31] Second, exposure to negative media depictions is also anticipated to impact stigmatized populations directly as research has found that exposure to stigma is associated with the development of low self-esteem, internalized stigma, and even the delay of help-seeking among marginalized groups.[32–36]

Research specific to LGBT populations has found that the negative depictions of these groups in the media may have a detrimental impact on the lives and wellbeing of these communities. For example, one study of LGBT adults found that exposure to negative, televised advertisements (ads) from same-sex marriage campaigns evoked feelings of stress and sadness among LGBT people exposed to such advertisements.[37] Furthermore, while the aforementioned study with LGBT people is an important contribution to the literature, sexual orientation and gender identity are different aspects of personal identity and transgender individuals have unique needs, particularly regarding their journeys of identity development.[38]

Despite the need for it, empirical research exclusively with transgender adults is limited. Several transgender men in one qualitative study reported that the media had negatively impacted their coming out process; however, the ways in which the media had harmed participants were not reported.[39] The possible impact of negative representations of transgender people in the media is particularly concerning given empirical evidence linking internalized transphobia to poor mental health.[4,40–42] Given the documented role of societal stigma in contributing to poor mental health outcomes for transgender individuals,[2] research is needed to explore exposure to negative media messages and examine the relationship between such exposure and the mental health of this marginalized population.

No quantitative study, to our knowledge, has explored exposure to negative transgender-related media across a range of platforms or examined the association of such exposure to the mental health of transgender individuals using validated scales. To fill these research gaps, the present study aimed to: (1) examine the extent to which transgender adults have been exposed to negative media messages appearing across a number of mediums (i.e., TV, print, and advertisements/signage); and (2) assess the association between negative media messages and the mental health of transgender individuals. These findings can be used to inform future interventions for this population.

Methods

Study procedures

Between March and August 2019, Brown University and The Fenway Institute collaborated to conduct a stress and health needs assessment of 600 transgender adults in Massachusetts and Rhode Island. The study utilized a participatory population perspective[43,44] to understand whether and how

structural and interpersonal stressors influence the health of transgender communities. Participants were recruited through transgender-specific online and in-person venues. The majority (95%) were sampled online (through electronic listservs, community-based websites, social networking sites); 5% were sampled in-person (onsite at transgender community events, community organizations, and health care clinics). Eligible participants were ages 18 years or older, self-identified as transgender (inclusive of binary and nonbinary people), resided in Rhode Island or Massachusetts for at least 3 months in the last year, and had the ability to read/write in either English or Spanish.

Participants completed a one-time survey assessing demographics, negative transgender-related media messages, violence, and mental health. Upon reaching the end of the survey, participants could opt to be entered into a community raffle for one of 54 gift cards ranging in value from $10 to $250. Electronic written informed consent was obtained for all enrolled participants. All study activities were approved by the Institutional Review Board of Fenway Health (Project Number: 1280264-6).

Measures

Primary independent variable. Exposure to negative media messages was assessed using three questions that were adapted from prior research with lesbian, gay, and bisexual people.[45] Participants were asked on a scale from 0 = Never to 4 = Very often, how often in the past 12 months they saw negative messages related to transgender people on: TV (including messages spoken by persons interviewed, reporters, or commentators), in Print (newspaper or magazine articles), and in Advertisements/Signage (including billboards, yard signs, bumper stickers, and flyers). A dichotomized measure of each negative message source was created. In addition, the three negative media items were combined and summed to create a single continuous indicator of frequency of negative media exposure (theoretical score range: 0–12).

Outcomes

Mental health outcomes. Clinically significant depressive symptoms, anxiety symptoms, and global psychological distress were assessed in the past 7 days using the 18-item Brief Symptom Inventory (BSI).[46] The 6 depression items, 6 anxiety items, and all 18 items representing global psychological distress were each summed and standardized using *T*-scores and then dichotomized based on a standard cutoff score indicative of clinically significant symptoms. Reliability of the BSI in the present study was excellent (full: $\alpha = 0.94$; depression $\alpha = 0.92$; anxiety $\alpha = 0.90$) and consistent with previous studies of transgender adults (full: $\alpha = 0.94$; depression $\alpha = 0.91$; anxiety $\alpha = 0.89$),[9] transgender men (full: $\alpha = 0.93$),[47] and transgender women (full: $\alpha = 0.90$[48]; depression $\alpha = 0.90$; anxiety $\alpha = 0.92$).[49] Prior research has also established the convergent validity of the BSI. One study with transgender men found that global psychological distress was positively associated with transgender-related intimate partner violence.[47] In addition, a study of transgender adults found that felt and enacted stigma were each positively associated with global psychological distress as measured with the full BSI.[9]

Post-traumatic stress disorder (PTSD) was assessed using a four-item scale designed for primary care settings.[50–52] Participants responded to each item using binary (yes/no) responses. Items were summed and dichotomized based on a score of 3 or more.

Covariates

Demographics. Age was assessed in years. Participants reported whether they had resided in Massachusetts, Rhode Island, or both states in the past 12 months. Race and ethnicity were assessed separately and categorized as: White, non-Hispanic versus Person of Color, which included: Hispanic, Black, Asian, Middle Eastern, American Indian, and Multiracial. Gender identity was assessed using a two-step method with two items: (1) assigned sex at birth (female, male) and (2) current gender identity (e.g., man, trans man, woman, trans woman, genderqueer, nonbinary).[1] The two items were cross-tabulated to categorize participants as trans woman, trans man, or nonbinary (e.g., genderqueer, gender nonconforming).

Socioeconomic status. Educational attainment was assessed using a measure from a prior survey with transgender individuals.[7] Participants reported their educational attainment with responses categorized as college graduate yes versus no. Financial insecurity was assessed using an item from the Federal Consumer Financial Protection Bureau's Financial Well-Being Scale.[53] Specifically, participants were asked to indicate the extent to which they experience the following: ''I have money left over at the end of the month.'' Participants who responded ''always'' or ''often'' were coded as no, not financially insecure; those who responded ''sometimes,'' ''rarely,'' or ''never'' were coded as yes, financially insecure.

Sexual and physical abuse. Participants were also asked about experiences of abuse throughout the life course through measures previously utilized in transgender samples.[8,54,55] Childhood physical abuse and sexual abuse were assessed before age 18. Physical and sexual abuse (partner and nonpartner) in adulthood (age 18 or older) were also assessed.

Data analysis

The sample was restricted to individuals who had complete data for the primary independent variable and outcome variables, resulting in a final analytical sample of $N = 545$. Univariate descriptive statistics were used to summarize the overall distribution of variables such as mean, standard deviation (SD), frequency, and proportion. Bivariate logistic regression analyses examined the association between the primary independent variable, the covariates, and the four mental health outcomes. Adjusting for age, gender identity, race, education, income, and childhood and adult sexual and physical abuse, four separate multivariable logistic regression models examined the association of past 12-month exposure to negative media messages and the four mental health outcomes. All statistical analyses were conducted in SAS 9.4 (SAS Institute Inc., Cary, NC, 2015). Statistical significance was determined at $p < 0.05$.

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Results

Sample characteristics

As shown in Table 1, the mean age was 31.2 years (SD = 11.2) and nearly half identified as nonbinary (42%). The majority of the sample resided all year or part of the year in Massachusetts (83.9%), was White non-Hispanic (82.0%), had a college degree (56.9%), and was financially insecure (67.0%). The prevalence of self-reported abuse was high in childhood (46.2% physical abuse, 39.1% sexual abuse) and adulthood (30.1% physical abuse, 48.4% sexual abuse). Overall, 97.6% reported seeing negative depictions of transgender people in the media in the past 12 months, mostly in print media (93.9%), on TV (93.8%), and in advertisements/signage (83.1%). The mean exposure to negative media messages across the mediums was 6.41 (SD = 2.9; range = 0–12).

Outcomes

The results of the adjusted, multivariable logistic regression models are reported in Tables 2 and 3. In separate multivariable models adjusted for age, gender identity, race, education, income, and childhood and adult sexual/physical abuse, greater frequency of exposure to negative depictions of transgender people in the media was significantly associated with clinically significant symptoms of depression (adjusted odds ratio [aOR] = 1.18; 95% confidence interval [CI] = 1.08–1.29; $p = 0.0003$); anxiety (aOR = 1.26; 95% CI = 1.14–1.40; $p < 0.0001$); global psychological distress (aOR = 1.28; 95% CI = 1.15–1.42; $p < 0.0001$); and PTSD (aOR = 1.25; 95% CI = 1.16–1.34; $p < 0.0001$).

Discussion

This study represents the first, to our knowledge, to quantitatively assess exposure to negative media messages and explore associations with mental health in a multistate sample of transgender adults. Nearly all transgender adults in this community sample reported being exposed to negative media messages across a range of mediums. Furthermore, as the frequency of exposure to negative media messages increased, so too did the odds of having clinically significant symptoms of depression, anxiety, global psychological distress, and PTSD. The present results extend a burgeoning body of evidence documenting the harms of exposure to stigmatizing media messages for transgender individuals.[37,39] The findings have implications for structural and clinical interventions to mitigate transgender stigma in the media and associated negative health outcomes for transgender people.

Almost all of the transgender adults in our sample reported exposure to negative media messages in the past 12 months on TV, in print media, and through billboards and other signage. These findings extend prior qualitative research showing that depictions of transgender individuals are commonly sensationalized and stigmatizing.[11,13] Although the specific types of TV, print, and advertisements/signage to which participants were exposed were not assessed in this study, it is possible that participants were exposed to advertisements and news coverage related to antitransgender policies, which have increased in recent years.[56] Indeed, since 2016, the Trump administration has sought to and, in many cases, overturned Obama-era protections for transgender people in schools, in the military, and in the workplace, and these actions have been widely reported in the media.[57,58] At the same time, numerous state-level efforts have sought to overturn protective transgender policies, including public accommodation laws that make it illegal to discriminate against transgender individuals in places that are open to the public, including public bathrooms.[56,57,59]

In addition to news coverage of the aforementioned legislative debates, opposition groups routinely run TV and print media campaigns to sway the opinion of voters.[57] For example, in 2018, in an attempt to entice voters to overturn public accommodation protections for transgender people in Massachusetts, MassResistance unsuccessfully used various forms of media, including pamphlets, lawn signs, TV ads, and YouTube videos, to disseminate an unfounded narrative about transgender people being sexually predacious.[60] Given that the public accommodation referendum was on the ballot in Massachusetts at the time of this survey, it is quite likely that the high prevalence of exposure to negative media messages across a range of platforms was due in part to this political debate. Prior research has found that exposure to negative political ads is associated with detrimental psychological outcomes for LGBT people who view them,[37] although no prior study has examined the relationships between negative transgender-related advertisements, signage, and other forms of media messages and the mental health of transgender people until now.

The present study found that exposure to negative media messages was associated with symptoms of depression, anxiety, PTSD, and psychological distress among transgender adults sampled even after controlling for known sources of poor mental health (i.e., physical and sexual abuse). Prior research with transgender individuals has found that enacted stigma (e.g., mistreatment by others) is associated with PTSD over and above traumatic experiences in childhood and adulthood.[55] Results from the present study extend previous research linking discrimination to PTSD symptoms, by showing that in addition to enacted forms of stigma, exposure to more distal forms of stigma in the form of negative media messages may also impact the mental health of transgender people in harmful ways. Research has shown that exposure to multiple social oppressions can diminish coping resources and may exacerbate poor mental health, including PTSD symptoms.[4,61] Furthermore, long-term exposure to stress can take a toll on the body and contribute to numerous adverse physical health outcomes (e.g., diabetes, heart disease) through a phenomenon termed allostatic load.[62,63] Altogether, the findings from the present study, along with prior research on the health impact of stigma, underscore the importance of intervening to address both proximal and distal forms of stigma to improve the health of transgender people.

Structural interventions that aim to increase transgender visibility by featuring positive, gender-affirming depictions of transgender people could help to counteract the harms of negative media messages both directly and indirectly. In terms of direct benefits, structural interventions depicting transgender people in a positive light could increase transgender people's self-esteem and diminish internalized stigma. Such interventions could also indirectly improve the wellbeing of transgender people by helping cisgender individuals develop positive attitudes toward transgender people, in turn leading to reductions in enacted stigma.

Table 1. Characteristics of a Sample of Transgender Adults from Massachusetts and Rhode Island ($N = 545$)

	Mean	*SD*
Age		
Range (18–73)	31.2	11.2
State	N	%
Massachusetts	443	81.3
Rhode Island	88	16.1
Both	14	2.6
Gender identity		
Trans woman	138	25.3
Trans man	177	32.5
Nonbinary	230	42.2
Race/Ethnicity		
White, non-Hispanic	447	82.0
Person of color	98	18.0
Hispanic	19	3.5
Black	18	3.3
Asian	13	2.4
Middle Eastern	6	1.1
American Indian	1	0.2
Multiracial	41	7.5
College graduate		
No	235	43.1
Yes	310	56.9
Financially insecure		
No	180	33.0
Yes	365	67.0
Childhood abuse		
No	215	39.4
Yes	330	60.6
Physical	252	46.2
Sexual	213	39.1
Abuse in adulthood		
No	229	42.0
Yes	316	58.0
Physical	164	30.1
Sexual	264	48.4
Transgender-related media messages—past 12 months		
Exposure to any negative media messages[a]	*Mean*	*SD*
Sum score: range: 0–12	6.41	2.9
Exposure to any negative media messages	N	%
No	13	2.4
Yes	532	97.6
Exposure to negative print media (newspapers, magazines)		
No	33	6.1
Yes	512	93.9
Exposure to negative TV media		
No	34	6.2
Yes	511	93.8
Exposure to advertisements and signage		
No	92	16.9
Yes	453	83.1
Mental health outcomes—current		
Depression		
No	459	84.2
Yes	86	15.8
Anxiety		
No	475	87.2
Yes	70	12.8
Post-traumatic stress disorder		
No	348	63.9
Yes	197	36.1
Global psychological distress		
No	479	87.9
Yes	66	12.1

[a]Primary independent variable.
SD, standard deviation.

To that end, a recent study found that exposing cisgender individuals to humanizing depictions of transgender people was effective in reducing prejudice and transphobia.[64] Another study of political advertisements found that transgender individuals who were exposed to positive advertisements felt a sense of enjoyment and happiness.[37] In addition to increasing the proliferation of positive depictions of transgender people, work is needed to educate the news media on how to report on transgender issues in a nonstigmatizing way. Furthermore, major networks should strive to report fact-based news, and social media outlets should remove inaccurate, hateful, and inflammatory transgender-related content so as to mitigate the harms of negative media messages to transgender people.

While structural interventions are needed to target stigma at its source and facilitate access to positive depictions of transgender people in the media, clinical interventions can help transgender people cope with the stress of being exposed to negative transgender-related media. Notably, the consumption of negative transgender-related media messages has been shown to adversely influence gender identity development, a time during which transgender individuals negotiate their emergent identities and envision future trajectories.[11,39] Transgender individuals may benefit from individual or group-based interventions that help them to cope with the stress of structural stigma by challenging the tendency of stigmatized individuals to internalize stigma, developing active coping strategies, and fostering individual and collective self-esteem.[65,66] Indeed, across numerous individual-level, self-affirmation interventions,[66] clinicians have used cognitive restructuring techniques to help diverse patients appraise difficult circumstances in hopeful ways as a means to reduce stress and provide individuals with the tools to cope with future threats to self. Although not specific to transgender people, the ESTEEM intervention for young gay and bisexual men utilized cognitive behavioral therapy to improve self-esteem and reduce the negative emotional (e.g., internalized homophobia) and behavioral (e.g., avoidance) consequences of stigma and improve mental health.[65]

Although evidence-based clinical interventions with transgender individuals are limited, LifeSkills, a group-based intervention with young transgender women, provided participants with the bios of accomplished transgender women and asked them to write their own bios, highlighting their

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Table 2. Multivariable Logistic Regression Models Examining the Association Between Past Twelve-Month Exposure to Negative Media Messages and Depression and Anxiety in a Sample of Transgender Adults from Massachusetts and Rhode Island ($N = 545$)

	Outcome 1: Depression						*Outcome 2: Anxiety*					
	Bivariate			*Multivariable model*			*Bivariate*			*Multivariable model*		
	OR	*95% CI*	p-*Value*	*aOR*	*95% CI*	p-*Value*	*OR*	*95% CI*	p-*Value*	*aOR*	*95% CI*	p-*Value*
Outcome												
Exposure to negative media messages	1.22	1.13–1.33	**<0.0001**	1.18	1.08–1.29	**0.0003**	1.30	1.18–1.42	**<0.0001**	1.26	1.14–1.40	**<0.0001**
Covariates												
Age (in years)	0.95	0.92–0.97	**0.0003**	0.94	0.91–0.98	**0.001**	0.93	0.89–0.96	**<0.0001**	0.92	0.88–0.96	**0.0002**
Gender identity												
Trans woman	1.56	0.91–2.67	0.10	1.80	0.97–3.33	0.06	0.73	0.40–1.36	0.32	0.89	0.44–1.79	0.74
Trans man	0.65	0.36–1.17	0.15	0.67	0.35–1.23	0.22	0.52	0.28–0.97	**0.04**	0.57	0.29–1.12	0.10
Nonbinary	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Race												
White, non-Hispanic	0.68	0.39–1.18	0.17	1.05	0.56–1.96	0.87	0.86	0.46–1.62	0.64	1.44	0.70–2.96	0.32
Person of color	1.00	—	—	1.00	—	—	1.00	—	—	0.36	—	—
College graduate												
No	4.00	2.41–6.60	**<0.0001**	3.10	1.79–5.38	**<0.0001**	1.79	1.08–2.97	**0.02**	1.29	0.72–2.32	0.39
Yes	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Financially insecure												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	2.06	1.19–3.59	**0.01**	1.31	0.71–2.42	0.38	2.15	1.16–3.98	**0.01**	1.55	0.80–3.02	0.20
Childhood abuse												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	1.62	0.98–2.65	0.06	1.28	0.72–2.29	0.41	1.39	0.82–2.36	0.23	1.11	0.61–2.05	0.73
Abuse in adulthood												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	2.39	1.42–4.01	**0.001**	2.02	1.11–3.66	**0.02**	2.74	1.53–4.93	**0.0007**	2.28	1.18–4.39	**0.01**

Bolded p-values represent statistical significance at $p < 0.05$.
OR, odds ratio; aOR, adjusted odds ratio; CI, confidence interval.

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Table 3. Multivariable Logistic Regression Models Examining the Association Between Past Twelve-Month Exposure to Negative Media Messages and Global Psychological Distress and Post-Traumatic Stress Disorder in a Sample of Transgender Adults from Massachusetts and Rhode Island ($N = 545$)

	Outcome 3: Global psychological distress						*Outcome 4: Post-traumatic stress disorder*					
	Bivariate			*Multivariable model*			*Bivariate*			*Multivariable model*		
	OR	*95% CI*	p-*Value*	*aOR*	*95% CI*	p-*Value*	*OR*	*95% CI*	p-*Value*	*aOR*	*95% CI*	p-*Value*
Outcome												
Exposure to negative media messages	1.34	1.21–1.47	**<0.0001**	1.28	1.15–1.42	**<0.0001**	1.30	1.22–1.40	**<0.0001**	1.25	1.16–1.34	**<0.0001**
Covariates												
Age (in years)	0.93	0.90–0.97	**0.0002**	0.92	0.88–0.96	**0.0003**	0.98	0.96–0.99	**0.004**	0.969	0.95–0.99	**0.002**
Gender identity												
Trans woman	1.01	0.56–1.84	0.97	1.29	0.65–2.59	0.47	0.79	0.51–1.22	0.28	0.92	0.54–1.55	0.74
Trans man	0.47	0.24–0.93	**0.03**	0.51	0.25–1.06	0.07	0.68	0.45–1.03	0.07	0.74	0.47–1.18	0.21
Nonbinary	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Race												
White, non-Hispanic	0.59	0.32–1.07	0.08	0.98	0.49–1.96	0.96	0.75	0.48–1.16	0.20	1.091	0.64–1.85	0.75
Person of color	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
College graduate												
No	2.24	1.32–3.79	**0.003**	1.54	0.84–2.82	0.16	1.48	1.04–2.10	**0.03**	1.21	0.80–1.84	0.37
Yes	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Financially insecure												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	2.43	1.27–4.67	**0.008**	1.59	0.78–3.23	0.20	2.76	1.83–4.16	**<0.0001**	2.02	1.28–3.18	**0.002**
Childhood abuse												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	2.03	1.14–3.63	**0.02**	1.63	0.84–3.17	0.15	2.55	1.74–3.74	**<0.0001**	1.92	1.23–2.99	**0.004**
Abuse in adulthood												
No	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
Yes	3.03	1.63–5.61	**0.0004**	2.17	1.08–4.32	**0.03**	3.24	2.20–4.76	**<0.0001**	2.28	1.48–3.51	**0.0002**

Bolded p-values represent statistical significance at $p < 0.05$.

strengths, accomplishments, and future goals as a means to reduce internalized transphobia and improve individual and collective self-esteem.[67,68] Given that more than 1 in 10 respondents in the current study had clinically significant symptoms of depression, anxiety, and global psychological distress, and more than 1 in 3 met the clinical threshold for PTSD, clinical interventions are urgently needed for transgender people that address stigma alongside presenting mental health concerns.

Limitations

This study has several methodological limitations. As a cross-sectional study, causality cannot be inferred. Although the racial/ethnic distribution of this convenience sample (82% White) was similar to the racial/ethnic distribution of residents of Massachusetts (81% White) and Rhode Island (84% White),[69,70] it is possible that our findings might not be generalizable to samples largely consisting of racial/ethnic minorities or recruited in other locations. In addition, this study did not assess, and therefore could not control for, psychological or emotional abuse, which has previously been linked to poor mental health among transgender individuals.[47]

Another limitation is that the specific content of the negative media to which transgender participants were exposed was not assessed. It may be that the association between media exposure and poor mental health varies according to the nature of the content (e.g., misgendering of transgender people by reporters vs. dehumanizing depictions of transgender sex workers on TV shows). For example, a recent qualitative study by Pham et al. found that negative news media coverage specifically contributed to feelings of depression and anxiety as well as fear of personal injury in a group of transgender and gender-nonconforming youth.[71] Future quantitative research should explore the nature of negative media content to capture the range of negative media content to which transgender individuals are exposed and the relationship between specific types of content and poor health. Finally, this study did not assess exposure to positive depictions of transgender individuals in the media. Given prior research showing that positive media messages confer psychological health benefits,[37] future research should evaluate whether exposure to positive messages moderates the relationship between negative media messages and adverse mental health outcomes among transgender populations.

Conclusions

The study found that transgender residents of Massachusetts and Rhode Island were exposed to a broad range of negative transgender-related media messages and that increased frequency of exposure to such messages was associated with poor mental health. Individual interventions that help transgender people cope with the stress of negative media messages and structural interventions that target stigma at its source may help to prevent the onset of adverse mental health symptoms in this population. Media-based interventions and individual clinical or empowerment interventions necessitate future development and testing among transgender populations.

Author Contributions

The first author designed and conducted the analysis and wrote the first draft of the article. All authors contributed to the interpretation of the analysis and writing and editing of the article.

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This article was prepared or accomplished by the authors in their personal capacity as independent researchers. The opinions expressed in this article are the authors' own and do not reflect the views of the National Institutes of Health (NIH), the Department of Health and Human Services, or the United States government.

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